ABSTRACT OF THE DISCLOSURE

The present invention provides for a system and method for blocking leakage signals and uncoupling connections in a communication system. A leakage signal (LS) blocking splitter employs a high-pass filter which effectively blocks the lower frequency leakage signal. The high-pass filter (an LS filter) has a cut-off frequency selected to fall between the upper range of the leakage signal (which is approximately 4 KHz in the preferred embodiment) and the low-end frequency of a data signal. A detect and terminate function detects service on the communication connection to which each one of the leakage signal (LS) filters are coupled to. The detect and terminate function detects service on the communication connection to ensure that each LS blocking splitter is coupled to an in-service communication connection. If the communication connection becomes out-of-service, such as when a customer discontinues service with the service provider, the detect and terminate functions automatically uncouple the respective LS filter from the communication connections so that the LS filter cannot introduce undesirable harmonics into the communication system. In an alternative embodiment, the detect and terminate function may insert an impedance matching element in addition to uncoupling the LS filter.